

Remarks/Arguments

Claims 1-39 are pending in the application. Claims 1, 15 and 27 are independent.

The Examiner has rejected claims 1-6, 8, 10, 12-20, 22, 24, 26-34 and 36-39 under 35 U.S.C. 103(a) as being unpatentable over Rosenberg (WO 99/49443) in view of Keyson (US 5,784,052). Applicant respectfully traverses the rejection.

Claim 1, as amended, recites a handheld electronic device comprising:

- a scrollwheel for providing input to the handheld electronic device;
- a dynamic feedback module connected to the scrollwheel for providing a plurality of types of feedback to a user of the handheld electronic device *in response to rotational motion of the scrollwheel*, the dynamic feedback module comprising:
 - means for resisting rotational motion of the scrollwheel, and
 - means for providing lateral motion of the scrollwheel;
- the plurality of types of feedback comprising resistance to rotation of the scrollwheel and movement of the scrollwheel in a direction toward or away from the user, each type of feedback associated with at least one of a plurality of feedback modes; and
- a software module for selecting a feedback mode from the plurality of feedback modes and activating the associated type of feedback provided by the dynamic feedback module.

The Examiner has suggested that all of the elements of claim 1 are taught by Rosenberg, with the exception of the means for providing lateral motion of the scrollwheel. The Examiner further suggests that this element is taught by Keyson.

Claim 1 has been amended to more clearly recite that the lateral feedback to the scrollwheel is in response to a rotational motion of the scrollwheel. The is, the lateral feedback of the scrollwheel is applied even though the user is applying a rotational force to the scrollwheel.

As previously submitted, rectilinear feedback is intuitively more meaningful and understandable to a user than rotational feedback. For instance, a user generally is

required to expend a relatively greater degree of attention to a handheld electronic device in order to detect rotational feedback than would be necessary to detect linear feedback. Linear patterns are generally more intuitively recognizable than rotational patterns. This is particularly true because the user actively rotating the scrollwheel. Thus, linear feedback during rotational motion of the scrollwheel is easier to detect than rotational feedback during rotational motion of the scrollwheel.

By contrast, Keyson teaches applying a lateral (z-coordinate control) feedback in response to the user applying a lateral force to the input device. For example, as described in column 8, lines 44 to 56 with reference to Figure 7, for a user to go from a current window to a lower level window the input device is depressed against a resistive force. By exceeding a certain threshold, a current window is closed and the next higher or lower level window is accessed. Another example is provided in column 9, lines 29 to 35, in which the z-coordinate control is implemented as tactile feedback in a traditional mouse that the user would feel when actuating the push button of the mouse. Thus, it will be appreciated that all the teaching of Keyson relate to lateral feedback in response to lateral actuation of the input device.

As mentioned above, it is submitted that the providing *lateral* motion of the scrollwheel in response to a *rotational* motion of the scrollwheel, as feedback, provides a significant advantage over the prior art implementations.

Therefore, for at least the reasons discussed above, Applicant submits claim 1 is patentable in view of Rosenberg and Keyson, and, as such, requests that the rejection of claim 1 be withdrawn.

Independent claims 15 and 27 are similar in scope to claim 1, and therefore a similar argument applies. Accordingly, we submit that the rejection to these claims be withdrawn for at least the same reasons.

Since the remaining dependent claims depend from one of the above noted independent claims, since we submit that the rejection of these claims be withdrawn for at least the same reasons.

For the foregoing reasons, the Applicant respectfully submits that the claimed invention is patentable over the prior art. Reconsideration and allowance of the claims is respectfully requested.

Respectfully submitted,

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